

Work Order ID 146042

Friday, May 06, 2016 8:58:06 AM

146042

Page 1

Item ID: D3686-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Monopod Assembly
Start Date: 5/10/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 5/13/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: Rem Date: 16/05/06 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3686	F								
100	Pick Kit	0.00							
100									
Packaging	Memo	0.00							
Packaging									
110	Small Fab	0.00							
110									
Small Fab	Memo	0.37							
Small Fab	1-Use anti-seize compound Tectly 502c Class 1,Mil-PRF-16173E or equivalent on thread and assemble as per dwg D3684								
	2-Assemble as per Dwg D3684								

NOV 08 2016

NOV 08 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

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Page 2

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Item Name: Monopod Assembly
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.02				1			DAS 38 9-89 NOV 09 2016
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: <u>St231A</u> Memo	0.00 0.01				1			DAS 6 9-89 NOV 09 2016
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.10							16/11/10 JJ DAS 21 9-89 NOV 10 2016

DQA: _____ Date: _____



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Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

Friday, May 06, 2016 8:58:05 AM

Page 1

Work Order ID: 146042

146042

Parent Item: D3686-041

D3686-041

Parent Item Name: Monopod Assembly

Start Date: 5/10/2016

Required Date: 5/13/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A new issue 08-02-12 DD verified by:JLM
IPP Rev:B As per Rev B 09-01-07 JLM Verified By:EC IPP
REV:C AS PER REV D 10-03-16 JLM VERIFIED BY:EC
IPP Rev:D Added sealant note as per Rev C 09-01-20 JLM
Verf:DD IPP REV:E
11.12.05 as per dwg revE DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3691-041 *D3691-041* Stud Assembly		Manufactured	No				Each	0.0000		1			
									**	1	FF	NOV 08 2016	
D3688-047 *D3688-047* Stud Assembly		Manufactured	No				Each	4.0000		1			
									**		FF	NOV 08 2016	
					<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>						
					GA	4				1			
					109346	4							
D3689-1 *D3689-1* Sleeve		Manufactured	No				Each	7.0000		1			
									**		FF	NOV 08 2016	
					<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>						
					FG	2							
					83358	2							
					ST231a	5							
					105605	5				1			

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Friday, May 06, 2016 8:58:05 AM

Page 2

Work Order ID: 146042

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Parent Item: D3686-041

D3686-041

Parent Item Name: Monopod Assembly

Start Date: 5/10/2016

Required Date: 5/13/2016

Start Qty: 1.00

Required Qty: 1.00

NAS509L12C

Purchased

No

Each

64.0000

1

NAS509L12C

**

FF NOV 08 2016

Nut

Location

Loc Qty

Loc Code

CCK007

63

m128578

63

ST265

1

120498

1

NAS509-12C

Purchased

No

Each

33.0000

1

NAS509-12C

**

FF NOV 08 2016

Nut

Location

Loc Qty

Loc Code

ST261

33

m128199

1

m128429

5

m128578

27

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



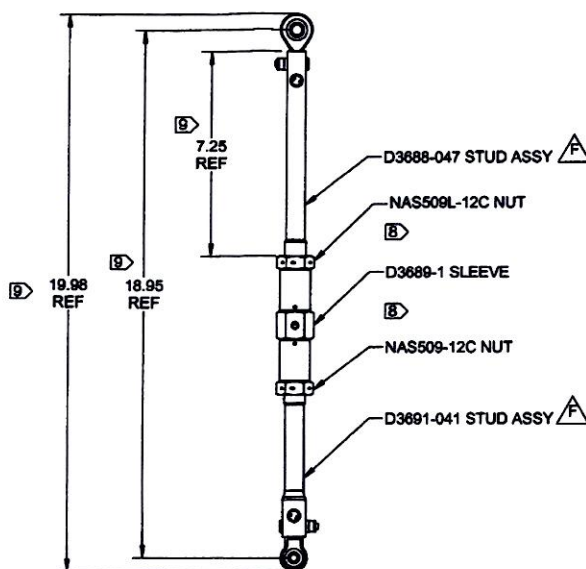
QA Closed: _____ Date: _____

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Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
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Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

ITEM	QTY	PART NUMBER	DESCRIPTION
1	X	D3686-041	MONOPOD ASSEMBLY
2	1	D3688-047	STUD ASSY
3	1	D3689-1	SLEEVE
4	1	D3691-041	STUD ASSY
5	1	NAS509L-12C	NUT
6	1	NAS509-12C	NUT



D3686-041 MONOPOD ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART ASSEMBLY P/N D3686-041 PER DART QSI 044 6.1 (FINE POINT PAINT MARKER)
- 7) WEIGHT: 2.92 lbs
- 8) USE TECTYL 502C CLASS I, MIL-PRF-16173E GRADE 2 OR EQUIVALENT ANTI-SEIZE COMPOUND ON THREAD.
- 9) DIMENSIONS SHOWN ARE WHEN D3688-047 & D3691-041 STUDS ARE FULLY THREADED INTO D3689-1 SLEEVES.

F	D3688-047 WAS D3688-7, D3691-041 WAS D3691-1, (ZN C3-1); RE-FORMAT NOTES SECTION AS PER QSI 043. REMOVE ASSEMBLY INSTRUCTIONS FROM NOTES (ZN A5-1), CHANGE BOM TABLE TO REFLECT NEW ASSEMBLY STRUCTURE (ZN D8-1), REF NCR 12-2074	DB	12.12.05
E	QTY(2) MS21250-03014 STEEL TENSION BOLTS AND QTY(2) MS21042-3 NUT REPLACE QTY(2) AN3C12A BOLTS AND QTY(2) MS21043-3 NUT (ZN B3-1 & C8/D6-1). REASON: PRODUCT IMPROVEMENT (REF. NCR11-784)	MB	11.11.23
D	19.98 WAS 20.10 (ZN C6-1); 18.95 WAS 19.07 (ZN C5-1)	RF	10.03.03
C	ROD END BEARINGS NOW ASSEMBLED USING SEALANT (ZN A5-1, B4-1)	RF	08.12.15
B	REFORMATTED TO CURRENT DWG STANDARDS	RF	08.11.24
A	NEW ISSUE	RF	08.05.22
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D3686 MONOPOD ASSEMBLY COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DRAWN	DB		
CHECKED	MB		
MFG. APPR.	JLM		
APPROVED	<i>[Signature]</i>		
DE APPR.	<i>[Signature]</i>	REV. F	SHEET 1 OF 1
DATE	12.12.05	SCALE	NTS

w/o 146042